

UNITED STATES DEPARTMENT OF THE INTERIOR

RAY LYMAN WILBUR, Secretary

OFFICE OF EDUCATION

WILLIAM JOHN COOPER, Commissioner

BULLETIN, 1930, No. 3

STATISTICAL SUMMARY
OF EDUCATION
1927-1928

By

FRANK M. PHILLIPS

CHIEF, DIVISION OF STATISTICS

[Advance sheets from the Biennial Survey of Education
in the United States, 1926-1928]



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WASHINGTON : 1930

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STATISTICAL SUMMARY OF EDUCATION, 1927-28

By FRANK M. PHILLIPS

Chief, Division of Statistics

The purpose of this report is to bring together and to summarize statistical information published in other chapters of the Biennial Survey of Education, and to present some new material that does not belong exclusively to any other statistical report. Data on public elementary and secondary schools are furnished by State departments of education. Data on private elementary schools are furnished by State departments of education, by the National Catholic Welfare Conference, and by a few individual reports from schools. Statistics of private and parochial secondary schools are furnished by State departments of education, by city school superintendents, by the National Catholic Welfare Conference, and by reports from practically all the schools included under this description. City school superintendents and their business managers report considerable data concerning schools in urban localities. The college, university, professional school, and teacher-training school authorities report upon their own institutions. Information for special schools, such as schools for delinquents and defectives, is reported by the schools having classes for these groups. Data for Indian schools are furnished by the Indian Office.

To insure accuracy and completeness, four field agents are employed to visit institutions and offices and assist them in making reports, and to advise reporting agencies how best to keep records. During the biennium approximately 30,000 schedules were received, verified, and compiled in order to make the 1927-28 report possible.

Table 1 shows a distribution of pupils in various types of schools according to public and to private control. The grand total shows 29,410,615 persons enrolled in the types included in the table. No information is available for the number enrolled in trade schools which are not public institutions, in correspondence schools, nor in any other type excepting as indicated. The number given for the outlying parts includes all types of schools in those parts from kindergarten to and including the universities.

TABLE 1.—*School and college enrollments, according to public and private control, 1927-28*

Schools	Public	Private	Total
Kindergartens.....	695,490	154,456	749,946
Elementary schools (includes elementary grades in junior high schools).....	20,572,927	2,234,999	22,807,926
City schools (included with elementary and high).....	12,273,412		12,273,412
Total elementary and kindergarten.....	21,268,417	2,289,455	23,557,872
Secondary (high schools and academies).....	3,911,279	341,158	4,252,437
Preparatory departments of colleges.....	12,528	38,060	50,588
Secondary students in teacher-training institutions.....	17,048	1,288	18,336
Total secondary students.....	3,940,855	380,506	4,321,361
Teachers colleges.....	196,644	10,155	206,799
Normal schools (excluding secondary students).....	58,313	9,236	67,549
Total in normal schools and teachers colleges.....	254,957	19,391	274,348
Universities, colleges, and professional schools (excluding preparatory).....	335,009	533,784	868,793
Industrial schools for delinquents (1927).....	84,317		84,317
Schools for the deaf (1927).....	16,563	933	17,496
Schools for the blind (1927).....	6,084		6,084
Schools for the feeble-minded and subnormals (1927).....	101,605	2,416	104,021
Schools for Indians.....	28,459	16,259	34,718
Government schools in Alaska.....	3,742		3,742
Other public schools in Alaska.....	4,829		4,829
Private commercial and business schools (1925).....		188,363	188,363
Grand total, excluding duplicates.....	25,989,508	3,421,107	29,410,615
All schools in the outlying parts of the United States (not included above).....	1,421,939	99,066	1,521,005

1 1924 data.

2 Includes pupils in 129 day schools and in 75 boarding schools.

In Table 2 only those schools are included which furnish a financial statement of the cost of maintaining and operating the schools. The per capita costs are based upon enrollments because in many schools it is not possible to secure a statement of the number in average daily attendance. Since per capita cost data are discussed in other parts of the biennial survey, no further comment is made at this point.

The total enrollment in schools furnishing a statement of expenditures is 29,276,068, and the total cost of education in 1928 amounts to \$3,033,765,590, an increase of more than \$290,000,000 over the cost of approximately the same schools for 1926.

TABLE 2.—*School enrollments, expenditures, and per capita costs in schools reporting finances, 1927-28*

Classification	Enrollment	Estimated cost per student enrolled	Total expenditure, including outlays
Public elementary schools (including kindergartens).....	21,268,417		
Public high schools (excluding elementary pupils in junior schools).....	3,911,279	\$86.77	\$2,184,847,300
Private elementary schools (including kindergartens).....	2,289,455	\$86.77	228,258,290
Private high schools and academies.....	341,158		
Universities and colleges (including preparatory students):			
Public.....	347,537	502.03	¹ 205,753,979
Private.....	571,844	508.49	¹ 290,775,330
Teachers colleges (including all resident students).....	219,119	207.84	45,542,706
Normal schools, including all resident students:			
State.....	48,065	234.62	11,277,101
City.....	14,154	240.11	³ 3,398,576
County.....	1,425	242.96	346,215
Private.....	14,667	258.06	3,785,000
Industrial schools for delinquents (1927).....	84,317	264.45	22,303,966
Schools for the deaf (1927):			
State.....	13,048	595.85	7,787,739
City (included with public schools).....	3,515		
Private.....	933	284.34	265,289
Schools for the blind (1927).....	6,084	630.90	3,838,404
Schools for the feeble-minded and subnormal (1927):			
State.....	49,791	342.01	17,028,943
City (included with public schools).....	51,814		
Private.....	2,416	552.65	1,335,212
Government schools for natives in Alaska.....	3,742	123.81	463,290
Other public schools for natives in Alaska.....	4,829	139.89	657,515
Government Indian schools.....	28,459	212.30	¹ 6,041,835
Grand total, excluding duplicates.....	29,276,068		3,033,706,690

¹ Estimated same as public schools.² Receipts, excluding addition to endowments.³ The Indian Office computes per capita costs of Indian schools upon basis of average attendance.

In Table 3 is given a summary statement of the number of teachers by sex in all schools reporting for 1927-28. This grand total of 1,010,232 teachers is composed of about 20 per cent men and 80 per cent women. The men outnumber the women only in institutions of higher learning.

TABLE 3.—Distribution of teachers for six periods

Teachers in—	1890		1900		1910		1920		1926		1928		
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Total
Public elementary schools.....	121,877	232,925	116,416	286,274	91,591	389,952	63,024	513,222	75,436	569,195	89,455	573,257	642,712
Public high schools.....	3,648	5,472	10,172	10,200	18,890	22,777	32,386	69,572	63,374	106,164	68,738	130,484	189,222
Private elementary schools (estimated).....	6,807	15,199	6,648	19,768	5,171	29,572	8,322	38,977	1,702	54,570	1,466	60,101	61,567
Private high schools.....	3,272	3,937	4,275	5,842	4,512	6,634	5,698	9,248	7,397	12,748	8,157	13,631	21,788
Universities and colleges.....													
Preparatory departments.....			2,569	1,601	2,807	1,741	2,714	1,568	2,189	1,728	1,834	1,433	3,267
Collegiate departments.....	5,675	2,783	8,987	2,110	14,051	3,230	21,644	6,469	32,605	10,721	36,783	13,839	50,122
Other departments.....													
Professional schools.....	4,758		8,277		13,285		10,903	1,239	14,152	885	27	89	14,916
Teachers colleges and normal schools, public.....			1,068	1,847	1,692	3,122	2,963	5,161	4,952	7,327	4,866	7,481	12,447
Teachers colleges and normal schools, private.....			792	665	503	597	597	866	822	1,130	865	1,150	2,015
Commercial and business schools.....	1,133	460	1,413	699	1,736	1,200	2,976	3,189	1,910	2,195	1,910	2,195	4,105
Schools for defectives and delinquents.....	564	982	813	1,650	4,134	2,352	1,165	2,744	1,578	6,571	1,578	6,571	8,149
Indian and Alaskan schools.....	644	965	1,189	1,793	1,702	2,456	141	652	63	96			1,918
Kindergartens.....													
Public.....													
Private.....	1,050	4,960	1,360	7,150	1,500	8,000	0	10,022	0	10,852			
Total, including undistributed items.....	149,428	267,653	163,999	339,599	158,574	471,633	151,215	663,958	205,889	770,630	209,398	799,816	1,010,232

Includes 3,869 men and 11,518 women teachers in junior high schools.

Figures for 1918.

Not distributed by sex.

Data for 1924. Included with elementary.

Does not include 1,832 men and 817 women, duplicates, in universities, colleges, and professional schools.

Table 4 gives a summary of the number of pupils enrolled in various types of schools by 5-year periods from 1890 to 1928 with the exception of 1925. No complete data are available for 1925 since statistics are now collected only biennially.

TABLE 4.—*Kindergarten, elementary, commercial, secondary, normal school, and college enrollments, 1890-1922*

Schools	1890	1895	1900	1905
Kindergartens (public and private)	31,227	65,296	225,394	311,050
Public elementary schools (including public kindergartens)	12,519,518	13,893,666	14,983,859	15,788,598
Private elementary schools (largely estimated)	1,661,897	1,211,220	1,240,925	1,347,000
Total elementary and kindergarten	14,181,415	15,104,886	16,224,784	17,135,598
Public high schools	202,963	350,099	519,251	679,702
Private high schools	94,931	118,347	110,797	107,207
Preparatory schools (in colleges and universities)	51,749	57,403	56,285	63,421
Secondary students in normal schools	8,170	13,863	9,570	15,824
Total secondary students	357,813	539,712	695,903	866,154
Normal schools and teachers' colleges (excluding secondary students)	34,814	58,504	69,593	65,800
Colleges, universities, and professional schools (excluding preparatory students)	121,942	144,706	167,999	199,045
Total college and normal students	156,756	203,210	237,592	264,845
Private commercial and business schools	78,920	96,135	91,549	146,086

Schools	1910	1915	1920	1928
Kindergartens (public and private)	346,189	486,800	510,949	749,946
Public elementary schools (including public kindergartens)	16,898,791	18,375,225	19,378,927	20,572,927
Private elementary schools (largely estimated)	1,558,437	1,615,091	1,485,561	2,234,999
Total elementary and kindergarten	18,457,228	19,990,316	20,864,488	22,807,926
Public high schools	915,061	1,328,084	2,199,389	3,911,279
Private high schools	117,400	155,044	213,920	341,158
Preparatory schools (in colleges and universities)	66,042	67,440	59,309	50,588
Secondary students in normal schools	12,890	13,504	22,058	18,536
Total secondary students	1,111,393	1,564,072	2,494,676	4,321,561
Normal schools and teachers' colleges (excluding secondary students)	88,561	100,325	135,412	274,348
Colleges, universities, and professional schools (excluding preparatory students)	266,654	303,233	462,445	868,793
Total college and normal students	355,215	403,558	597,857	1,143,141
Private commercial and business schools	155,244	183,268	335,161	188,363

1888. 1892. Private kindergarten data for 1902. 1912. From State reports. 1925.

In Table 5 is a summary of enrollments by States for elementary schools, high schools, teacher-training institutions, and institutions of higher education according to public and private control. These figures are submitted for reference.

BIENNIAL SURVEY OF EDUCATION, 1926-1928

TABLE 5.—Enrollment in certain types of schools, by States, 1927-28

State	Elementary schools and kindergartens		Secondary schools		Normal schools and teachers colleges		Universities, colleges, and professional schools	
	Public	Private	Public	Private	Public	Private	Public	Private
1	2	3	4	5	6	7	8	9
Continental United States	21,268,417	2,234,999	3,940,855	380,506	254,961	19,343	335,009	533,784
Alabama	580,572	11,572	55,381	6,941	7,099	997	5,251	3,658
Arizona	76,984	3,823	12,100	474	1,708		2,337	72
Arkansas	440,409	4,726	39,774	2,374	2,111		2,104	2,775
California	805,798	43,692	199,940	15,810	8,424	216	27,035	26,762
Colorado	194,624	11,106	44,670	2,018	5,547	138	5,063	3,932
Connecticut	266,210	48,438	46,255	7,573	1,159	388	635	7,006
Delaware	34,518	6,194	6,351	995			707	
District of Columbia	62,838	7,846	14,590	2,960	538	200	144	14,010
Florida	320,433	5,292	40,924	1,333			3,511	1,959
Georgia	632,787	4,295	72,488	4,978	2,648		5,559	7,728
Idaho	97,073	2,290	23,773	662	1,519	237	2,340	790
Illinois	1,109,823	233,350	270,699	40,531	14,717	1,567	17,321	49,278
Indiana	523,103	61,902	131,617	6,571	5,601	2,561	8,390	13,339
Iowa	441,924	39,560	110,260	8,512	5,716	29	10,816	11,464
Kansas	338,473	31,507	87,497	8,977	8,058		10,099	7,303
Kentucky	526,923	31,262	55,712	9,018	8,751		4,176	4,592
Louisiana	367,796	38,611	48,333	4,940	2,381		4,496	5,412
Maine	123,540	20,807	28,408	5,544	2,467		1,359	1,884
Maryland	234,640	39,160	36,260	4,612	1,398		4,353	8,664
Massachusetts	596,220	157,712	148,128	45,002	5,021	1,982	800	47,043
Michigan	710,327	12,580	132,492	13,261	14,546		17,645	8,590
Minnesota	463,288	50,659	91,140	10,963	5,385	425	12,892	6,780
Mississippi	555,287	6,057	50,828	3,528	2,028	310	4,168	3,247
Missouri	554,864	61,500	125,629	10,178	11,969		6,808	16,867
Montana	95,740	8,510	22,222	1,257	1,086		2,791	273
Nebraska	260,702	21,782	66,227	3,735	5,377	298	6,908	5,879
Nevada	13,304	0	4,175	0	0		1,002	
New Hampshire	59,865	22,492	13,177	4,186	1,202		1,658	2,416
New Jersey	653,708	115,925	106,488	12,094	4,226	332	3,024	6,583
New Mexico	77,233	7,314	9,787	982	1,307		1,291	
New York	1,701,088	341,563	361,342	42,101	19,312	1,271	33,940	94,166
North Carolina	746,375	1,717	102,647	8,500	3,537	1,632	6,208	9,494
North Dakota	145,719	7,487	27,251	1,039	5,217		3,258	546
Ohio	1,052,665	150,627	243,023	22,143	6,746	335	29,045	30,928
Oklahoma	588,038	5,128	95,781	1,940	14,024		9,798	3,569
Oregon	144,851	8,962	42,520	2,208	2,788	333	7,180	2,762
Pennsylvania	1,621,650	277,423	262,779	25,338	14,484	302	4,113	61,424
Rhode Island	97,178	28,816	16,278	3,832	890		536	2,697
South Carolina	422,638	1,705	53,793	1,947	108	63	5,864	4,882
South Dakota	136,501	9,637	28,364	1,164	3,425	32	2,323	1,816
Tennessee	610,944	5,083	66,252	3,301	6,436	4,033	3,568	10,355
Texas	1,016,464	38,872	217,594	5,819	19,412		16,157	20,518
Utah	108,532	1,324	28,053	3,952	0	43	4,287	2,117
Vermont	53,511	7,892	11,018	712	125		1,235	1,058
Virginia	497,500	7,275	67,530	2,775	5,898	1,441	6,243	7,944
Washington	260,764	16,347	78,237	5,126	3,744	178	11,498	1,965
West Virginia	357,178	27,241	44,598	1,251	6,308		4,513	2,011
Wisconsin	445,251	97,987	97,314	7,310	9,918		9,672	7,226
Wyoming	42,504	757	10,827	39	0		1,203	

PERCENTAGE OF THE COLLEGE AGE GROUP IN COLLEGES

The following table is introduced to show the number of students enrolled regularly in universities, colleges, and professional schools from 1900 to 1928; the number enrolled in summer sessions and in extension and correspondence courses in these institutions as early as such students began to be reported; the number enrolled in teachers colleges and in collegiate courses in State normal schools in regular sessions, summer sessions, and in extension and correspondence courses and a grand total of the number of students doing college work in some of the institutions just mentioned from 1900 to date. The table shows also the percentage of the college age group, ages 19, 20, 21, and 22, enrolled in regular sessions of universities, colleges, and professional schools, and the per cent the grand total is of the number in these four single-age groups for the years under consideration. In 1900, 5,911,425 persons were in the college age group, 7,242,147 in 1910, and 7,321,028 in 1920. The numbers for the other years are estimated from these census counts, the estimated number for 1928 being 7,384,127.

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TABLE 6.—Number of students taking some form of college work, and per cent of those of ages 19, 20, 21, and 22, so engaged, 1900-1928

Year	Universities and colleges			Teachers colleges			Collegiate students in normal schools			Estimated grand total, excluding duplicates	Per cent column 2-11 of total age group	Per cent column 11 of total age group
	Regular year	Summer session	Extension, correspondence	Regular year	Summer session	Extension, correspondence	Regular year	Summer session	Extension, correspondence			
1	2	3	4	5	6	7	8	9	10	11	12	13
1928	898,793	239,570	292,074	114,618	120,019	61,090	46,627	23,187	7,744	1,325,675	11.77	17.95
1926	767,263	209,454	273,235	85,207	92,588	40,076	49,609	38,419	11,508	1,193,521	10.41	16.20
1924	664,296	189,943	144,859	58,896	74,619	32,362	11,240	13,563	16,927	954,058	9.03	13.11
1922	550,906	148,063	119,708	56,432	72,248	24,663	()	()	10,790	773,418	7.51	10.54
1920	462,445	94,838	83,100	54,721	38,011	13,360	()	()	5,202	542,275	6.32	7.41
1918	330,689	78,059	50,314							345,442	4.53	4.73
1916	354,325	89,438								371,229	4.86	5.09
1915	303,233	83,234								318,944	4.16	4.38
1910	296,654									296,654	3.68	3.68
1905	199,045									199,045	3.03	3.03
1900	167,999									167,999	2.84	2.84

! No data.

In 1900, 2.8 per cent of the college-age group were enrolled in regular sessions of universities, colleges, and professional schools. In 1910, 3.7 were so enrolled; in 1920, 6.3 per cent; and in 1928, 11.8 per cent. The rate dropped off in 1918 at the time of the World War. Teachers college records were separated from other colleges and universities in 1920, and when all students in these institutions taking work of the college level are considered, the per cent of the college-age group taking college work has increased from 2.2 per cent in 1880 to approximately 18 per cent in 1928. At the present time, after deducting the number of those in graduate work and those in professional departments above the fourth year of college preparation approximately one person out of every six in the college-age group is training for culture or leadership in the arts and sciences, or for a career in law, medicine, dentistry, theology, teaching, engineering, business, or for opportunities in administration or in a managerial capacity, or in some other field in which a college training seems to be of prime importance. Some of these are training for improvement without having any particular occupation in mind, but many of those in the arts and sciences, and most of those in the professions have a more or less definite employment in mind upon graduation.

A survey of current literature reveals the fear which is expressed by careful students in the field of higher education that we may be training too many for employment, too many for the competition which exists for landing jobs, too many for the money value of education, and that we might well stress the civic values, the social values, and the cultural values of college training more extensively than we are now doing. However, these figures indicate that the educational level of our adults is being raised considerably. To-day less than 2.5 per cent of our adults are college graduates, and another 4.6 per cent have had some college training.

PER CENT OF HIGH-SCHOOL GRADUATES CONTINUING EDUCATION

The data contained in Table 4 indicate the rapid and continuous growth of both secondary schools and institutions for higher education. One wonders whether or not the colleges and universities are getting a constant share of high-school graduates year after year. Valuable material has been collected since 1918 which throws light upon this question. The number attending colleges and other institutions in 1918 and 1920, however, has to be matched with the number of high-school graduates for those same years. Beginning with 1922 the number of graduates is reported for the year from which the college entrants come. For example, the 1921 graduates continued their education in 1922 or later. Data from 1922 on do not indicate the number beginning further education later than the first year.

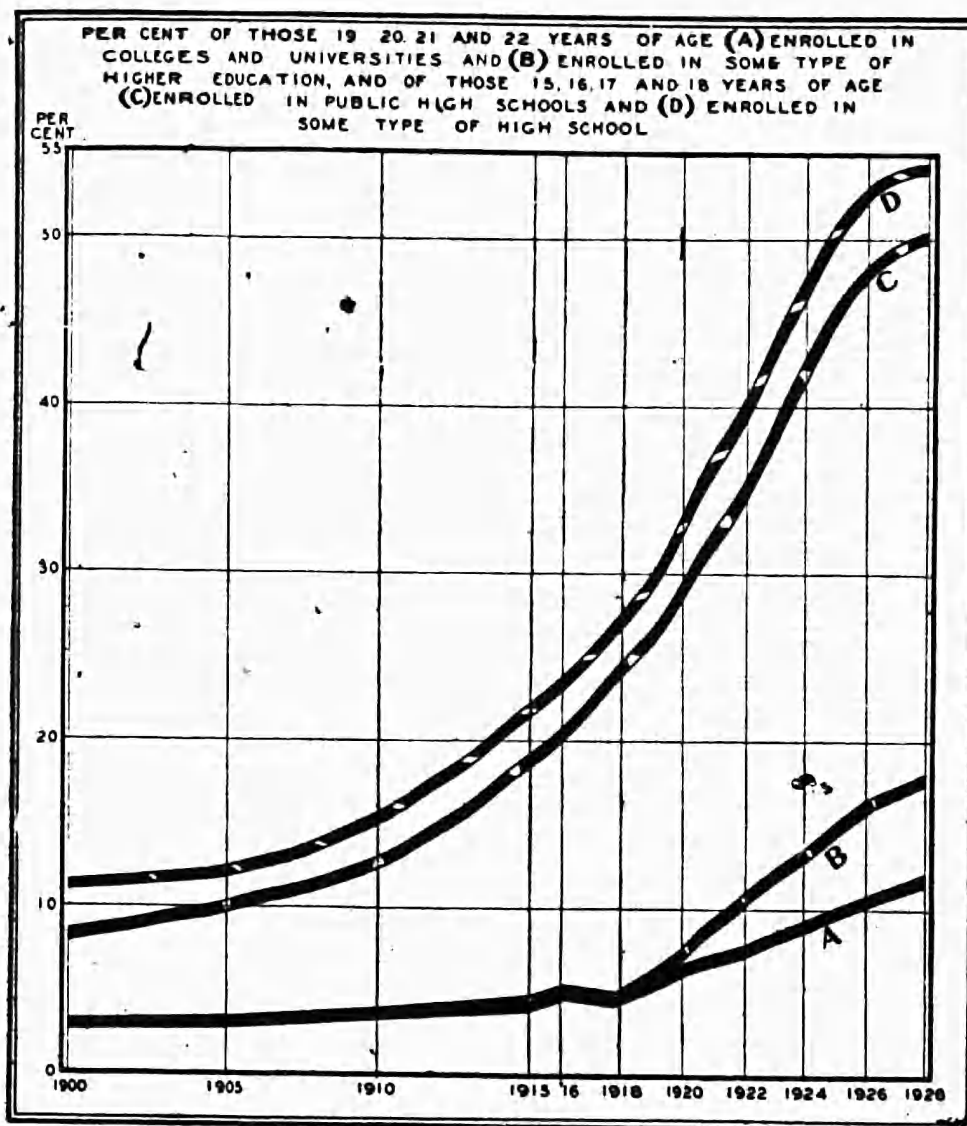
after graduation. The percentages given in the following table are therefore likely to be smaller than the actual figures, but it seems impossible to get a careful check upon the number beginning a college or other education later than the first year after graduation had passed. The data presented, therefore, show the per cent of each sex attending college or other institution during the first year after graduation from a public high school.

Year	Per cent attending college the next year		Per cent attending some other institution	
	Boys	Girls	Boys	Girls
1927.....	35.0	27.0	8.1	15.7
1925.....	37.4	27.8	9.0	17.9
1923.....	37.2	25.7	10.1	17.4
1921.....	39.8	22.5	9.2	15.5

These figures show that about 40 per cent of the boy graduates of public high schools went to college the year after graduation in 1921, and that the percentage decreased to 35 per cent of those graduating in 1927. It is difficult to make a statement of trends concerning girl graduates, because the number of women enrolled in colleges has been increasing of late years faster than the increase in the number of men enrolled. The increase in the rates from 22.5 per cent in 1921 to 27.8 in 1925 bears out this statement. The reduction from 27.8 per cent in 1925 to 27 in 1927 may or may not be significant.

The other institutions included in the above table are private commercial schools, teacher-training schools, and trade schools. The decrease in the percentage of boys attending these other institutions since 1923, and the decrease in the percentage of girls attending since 1925 seems to be supported by the falling off in the enrollments in commercial schools, and in the slower growth noted in teacher-training schools.

Data by sex are not available for private high schools, but in 1921, 44.6 per cent of the graduates went to college the next year. This rate decreased to 42.4 in 1925 and then increased to 44.2 in 1927. The percentage going to other institutions has remained about constant at 16.6 ever since 1921. From 100 public high-school graduates in 1921 and in 1927, 31 went to college the next year. From 100 private high-school graduates for these same years, 44 went to college the next year. The following graph shows the percentage increase of certain age groups in schools from 1900 to 1928.



SURVIVAL RATES IN PUBLIC SCHOOLS

A careful study of survival rates made by the office in 1918 shows that of every 1,000 pupils reaching the fifth grade at that time, 634 reached the eighth grade, 342 entered the high school, and 139 were graduated. Since that time the number enrolled in the early grades has decreased slightly, while the number in the upper grades has increased considerably. In 1918 the public high schools enrolled 1,933,821 pupils, and in 1926 they enrolled 3,911,279, or twice as many. The 1918 rates are, therefore, no longer applicable.

In making survival rates for 1928, it is observed that a larger number of children are enrolled in each of the first five elementary grades, allowing for duplicates, than there are 6-year-olds, or 7-year-olds. Without correcting for repeaters, or for those enrolled in private schools, it is assumed that practically all children attend school until after they enter the fifth grade.

Making allowance for duplication, it is now estimated that of an original 1,000 entering the public schools for the first time, 974 reach the sixth grade, 855 reach the seventh grade, and 768 reach the eighth grade. No data are available concerning the number of pupils who complete the work of the eighth grade.

Of the original 1,000, the number entering the first year of the high school is 610, while 438 reach the second year, 321 reach the third year, 268 reach the fourth year, and 260 are finally graduated from high school.

After making an adjustment for those communities that have but seven years of elementary school work instead of eight, the length of public-school life to-day is just a little beyond the completion of the first year of high school.

It is not possible to show survival rates by years beyond the high school at this time, but, excluding preparatory students, the colleges, universities, professional schools, and teachers colleges enrolled 338,759 students in 1918, and 1,325,675 in 1928. First and professional degrees were granted to 37,915 college students in 1918, and 111,161 in 1928, with 44,165 continuing with graduate work. Of the original 1,000 in 1918, the number entering college was 72, and the number graduated was 23. A conservative estimate for 1928 would indicate that 160 of the original 1,000 entered college and 50 were graduated. These data do not include 138,074 enrolled in normal schools in 1918, and 25,613 in 1926, nor those in private business schools, nor in other types of schools not mentioned above.

SUMMER SCHOOLS

The following tabulation is included to show the enrollments in summer sessions of colleges, universities, and teacher-training institutions from 1917 to and including 1927:

School	1917	1919	1921	1923	1925	1927
Universities and colleges.....	64,624	94,838	148,063	189,943	209,454	239,570
Teacher-training schools.....	78,059	73,348	116,908	132,859	137,976	144,285
Total.....	132,683	168,186	267,971	322,802	347,430	383,855

These data indicate that enrollments in summer sessions of colleges and universities increased about 74 per cent between 1917 and 1919, 56 per cent in the next 2-year period, 28 in the next, 10 in the next, and 14.4 per cent between 1925 and 1927. In teacher-training institutions the summer session enrollments decreased between 1917 and 1919, then increased about 64 per cent from 1919 to 1921, 11 per cent during the next 2-year period, 4 per cent in the next, and 4.6 per cent between 1925 and 1927.

With one exception, these enrollments have increased with each 2-year period, but the high rate of increase noted up to 1921, has been replaced by a continuously slower rate of increase.

COST OF SCHOOL AND COLLEGE TEXTBOOKS FOR 1928

Sixty publishers of school and college textbooks report total net sales in the United States and in the Philippine Islands amounting to \$49,097,466 for the calendar year 1928. The list of publishers includes the State printer of books in California and all the larger publishing concerns, thus representing the bulk of the textbook business in this country. Practically all those reporting were able to divide the business according to books sold under each classification. For elementary school purposes, 39,406,677 books were sold for \$22,735,745 net; for high-school purposes, 18,683,290 books for \$16,288,422 net; and for college, university, professional school, and teacher-training institution purposes, 6,080,484 books for \$10,073,299 net. The total number of books sold during the year is 64,170,484.

The average net cost of an elementary textbook is, therefore, 57.7 cents; of a high-school textbook, 87.2 cents; and of a college textbook, 165.7 cents; making an average for all books sold of 76.5 cents. These figures represent the net cost, which does not include a dealer's profit. As books are sold generally at 20 to 25 per cent off list prices, it is necessary to add 30 per cent to the net cost to get the cost per book at retail.

It is not possible to state in exact terms the amount of net sales that went to public schools, but since 91 per cent of the total elementary and high-school enrollment is in public schools, 91 per cent of \$39,024,067 may be assumed to be the total net sales for books used in public schools. It is probably true that the private-school pupils buy more books proportionately than do the public-school pupils, because of fewer free textbook systems among the private schools, but this factor is offset partly, if not entirely, by the fact that the public schools have a higher proportion than do the private schools of their pupils in high schools where the cost per book is higher. In 1928 the private schools had 13 per cent of their pupils in high schools, while the public schools had 16 per cent of their pupils in high schools. Ninety-one per cent of \$39,024,067, or \$35,511,992, represents 1.63 per cent of the total expenditure for public-school education in 1927-28. Of this total public-school expenditure, \$2,184,847,200, the amount expended for free textbooks by boards of education in all States is \$23,256,151, or 65.5 per cent of the total net sales of books used in public schools. The greater part of this is for elementary texts. If the amount expended for free textbooks in public schools be subtracted from \$35,511,992, there remains \$12,255,841 as the amount of net sales of books bought

by individuals, presumably through dealers. A 30 per cent profit would make \$15,932,593 the cost to the general public for new books for the year. No data were collected to show the volume of the secondhand book business, but as those books merely change ownership, the net expenditure by individuals for textbooks used in public schools is between 16 and 17 million dollars for the year.

In 1913, 43 publishing concerns reported net sales amounting to \$17,274,030, of which amount \$14,261,768 was for public-school use. This amounts to 78.3 cents for each child enrolled during that year, and to 2.73 per cent of the total expenditures for public-school education. The 1928 net sales amounted to \$1.351 per child enrolled during 1927-28. In 1913 boards of education in public schools spent for free textbooks an amount equivalent to 80.5 per cent of the total net sales for that year. Since 1913 the public-school enrollment has been multiplied by about one and one-third, the amount expended for free textbooks by two, the net sales of public-school textbooks by two and one-half, and the total expenditures for public schools by four.

VALUE OF SCHOOL PROPERTY

At the close of the school year 1927-28, state departments of education report a total value of property used for public-school purposes of \$5,486,938,599. Private high schools report a total valuation of \$635,848,000, which includes \$75,376,000 in endowment. Teacher-training institutions report a valuation of \$222,554,652, which includes endowments valued at \$22,171,374. The universities, colleges, and professional schools report property valued at \$2,413,748,981, which includes \$1,150,112,251 as value of endowments. If the private elementary school property is valued at \$400,000,000, the total value of property belonging to the types of schools mentioned above is about \$9,159,100,000, which includes endowments and productive funds amounting to \$1,247,660,000.

HIGH-SCHOOL ENROLLMENT BY SUBJECT

The data contained in Table 7 are discussed briefly for private high schools, and more extensively for public high schools in other sections of the biennial survey. This table combines the summaries for both types of schools. In the public high schools 2,896,630 pupils were taking 14,498,964 subject enrollments, counting every subject reported whether a year subject, or a semester subject, or some other activity. This amounts to five subjects per pupil for the year. In private high schools, counting everything reported, 248,015 pupils were registered for 1,364,000 subject enrollments, or 5.5 subjects for each pupil enrolled. These averages indicate that the reports upon subject enrollments are rather complete.

TABLE 7.—Students in certain studies in public and in private high schools combined, 1890-1928

Studies	1890		1895		1900		1905		1910		1915		1922		1928	
	Students	Per cent of total	Students	Per cent of total	Students	Per cent of total	Students	Per cent of total	Students	Per cent of total	Students	Per cent of total	Students	Per cent of total	Students	Per cent of total
Total number students in schools reporting studies in—	297,804		468,446		630,048		786,909		817,653		1,291,187		2,335,023		3,144,645	
Latin.....	100,144	33.62	205,006	43.76	314,856	49.97	391,067	49.69	405,502	49.59	503,985	39.03	688,547	29.48	777,081	24.71
French.....	28,032	9.41	45,746	9.77	65,894	10.43	89,777	11.40	95,671	11.70	136,131	10.54	391,481	16.76	480,120	15.27
German.....	34,208	11.48	58,921	12.58	94,873	15.06	160,066	20.34	192,933	23.60	312,358	24.19	19,643	84	62,184	1.98
Spanish.....							17,158	2.18	5,283	.65	35,148	2.72	263,834	11.30	296,009	9.41
Greek.....	12,809	4.32	22,159	4.73	24,869	3.95	44,092	5.61	10,739	1.31	10,671	.83	7,978	.34	8,165	.26
Algebra.....	127,397	42.77	245,465	52.40	347,013	55.08	444,092	56.43	465,375	56.92	636,016	49.26	949,161	40.64	1,133,930	36.06
Geometry.....	59,781	20.07	114,813	24.51	168,518	26.75	219,082	27.84	252,404	30.87	346,064	26.80	537,087	23.00	641,603	20.40
Trigonometry.....			15,243	3.25	15,268	2.42	17,256	2.19	17,864	2.18	22,478	1.74	38,809	1.66	45,631	1.45
General mathematics.....															177,340	5.64
Astronomy.....			24,690	5.27	21,595	3.43	13,507	1.71	7,216	.88	5,767	.45	2,319	.10	2,045	.07
Physics.....	63,644	21.36	103,788	22.15	118,936	18.88	123,282	15.66	120,915	14.79	184,426	14.28	213,237	9.13	224,233	7.13
Chemistry.....	28,665	9.62	43,607	9.31	60,431	9.59	53,414	7.04	58,390	7.13	98,516	7.63	176,761	7.57	230,020	7.31
Physical geography.....			105,124	22.44	144,135	22.88	165,631	21.05	156,500	19.14	189,229	14.66	104,797	4.40	81,807	2.60
Zoology.....									64,428	7.88	41,883	3.24	35,458	1.52	24,184	.77
Botany.....									118,193	14.44	118,193	9.15	89,938	3.85	50,611	1.61
Geology.....									133,667	16.34	85,359	6.61	201,834	8.64	418,121	13.30
Physiology.....															2,816	.09
Hygiene and sanitation.....									11,251	1.38	7,590	.59	122,277	5.24	85,276	2.71
General science.....									128,826	15.76	128,343	9.94	142,859	6.12	237,760	7.56
Psychology.....															413,466	12.83
Principles of teaching.....															22,953	.68
Rhetoric.....															21,689	.63
English literature.....									11,004	1.35	18,521	1.43	22,953	.68	32,455	1.03
American history.....															1,857,316	55.61
English history.....															359,057	10.57
World history.....															74,756	2.23
Ancient history.....															413,014	12.33
Medieval and modern history.....															361,641	10.64
Civil government.....															444,306	13.22
Civics, community.....															52,853	1.62
Sociology.....															107,642	3.23
Economics.....															153,858	4.58
Problems of democracy.....															31,964	.98

* Beginning with 1910, percentages are computed upon basis of number of pupils in the schools reporting by subject; previous to that time upon total number of pupils in all high schools reporting.

TABLE 7.—Students in certain studies in public and in private high schools combined, 1890-1928—Continued

Studies	1890		1895		1900		1905		1910		1915		1922		1928	
	Students	Per cent of total	Students	Per cent of total	Students	Per cent of total	Students	Per cent of total	Students	Per cent of total	Students	Per cent of total	Students	Per cent of total	Students	Per cent of total
Students in—Continued.																
Agriculture.....									37,203	4.55	59,338	6.92	114,582	4.90	108,713	3.46
Home economics.....									33,866	4.14	163,826	12.69	321,136	13.75	449,835	14.30
Manual training and vocations.....											137,318	10.84	247,585	10.60	263,669	8.38
Drawing and art.....											297,498	23.04	346,941	14.85	359,444	11.43
Mechanical drawing.....																
Music (vocal).....											414,655	32.19	55,414	2.37	208,551	6.57
Arithmetic.....													525,735	22.51	671,597	21.36
Bookkeeping.....											42,431	3.29	248,249	10.63	75,835	2.41
Shorthand.....													289,005	12.37	328,205	10.44
Type writing.....													208,216	8.91	273,596	8.70
Commercial arithmetic.....													308,535	13.00	470,949	14.98
Commercial law.....													32,536	1.39	211,194	6.72
Commercial geography.....													20,620	.88	83,572	2.66
Commercial history.....													37,300	1.60	144,525	4.60
Penmanship.....													8,363	.36	5,322	.17
													37,188	1.69	22,172	.71